



Cape Fear Arch August 28, 2012 Meeting Notes

9:35: Phill Prete opens the meeting with a welcome and introduction of Naomi Miller from the Bladen Community College. Naomi complemented the group as beautiful and handsome and welcomed everyone to East Arcadia Campus of Bladen Community College and gave a brief history of the college.

Our traditional way of starting a meeting is to go around and introduce yourself and what is going on in your world. Phil introduced Matt Collogan with Airlie Gardens and NHC Parks and Gardens as a new potential member.

Matt: I work with New Hanover Parks and Senior Center and we're really into Butterfly diversity and I know that N.H. Parks wants to work more with the Cape Fear Arch.

Mike Giles: Coastal Fed looking at Titan and the NE Cape Fear river and how we can improve public awareness. Sea Level rise and things like that.

Mamie Caison: Brunswick Soil and Water Conservation District. We work mostly with agriculture and encourage natural resource conservation.

Amy Manor Thornton: Cape Fear Museum of History and Science. We are working with the changing common core standards for NC school systems, workings on new curriculum to meet standards. Fall is going to be all about science.

Dan Ryan: The Nature Conservancy. In conjunction with WRC we closed on 340 acres with about 1000 to go. US Fish and Wildlife sponsored burning taking our prescribed burn into new areas.

Scott Ogden: Cap Fear Economic Development Council. Our group meets in bi monthly forums. In September were doing a forum for the candidates with WHQR.

Sarah McRae: US Fish and Wildlife Service working with endangered animals. I'm really interested in working with Arch because of the magnificent ramshorn snail (*Planorbella magnifica*).

Jessi Baker: NC Division of Marine Fisheries in the habitat division.

Melanie Doyle: Fort Fisher Aquarium we too are working on the changes in NC core curriculum and sea level rise.

Tom Charles: Cape Fear Lock and Dams. Lots going on with visitors and partnerships. Meeting with engineers to submit a fishing platform because permits are already to build it.

Tony Doster: Resource Management Service. We manage about 2,000 acres of forest land and we've been working on reforestation program. We provide lots of timber to mills around here. We've been working with Coastal Land Trust and WHQR to raise money for every pledge the American Forestry Society gave seedling to the Coastal Land Trust Property. We are neighbors with the Juniper Nature Reserve and with TNC and we cooperate with them with poaching and prescribed burns. We are working with Natural Heritage folks to identify rare or high conservation value areas and set those aside for protection.

Dave Allen: NCWRC wildlife diversity program. Supervisor on the coast we work with sea turtles and John Carpenter. Water bird project too. We don't have a mammal person but have contracted some bat work on the coast.

Scott Pohlman DNR department of Conservation and the Natural Heritage Program. I'm also with the prescribed fire council.

John Carpenter: NCWRC land bird biologist. Working on the Roanoke River doing surveys looking to bring that survey program to the coast. Working with Orton Plantation to bring them into our woodpecker conservation program.

Matt Collogan: NHC Parks and Gardens and Arilie Gardens. I work extensively with the seasonal native butterfly house. I want to get involved through environmental education programs.

Tracey Scrabal: NC Coastal Federation. Looking at the shoreline stabilization rules and working with National Academy of Sciences to develop a national approach to shoreline management. Working with oyster conservation in the region and on the landward side of Oak Island we are removing storm water pipes.

Cassie Garvin: NC Coastal Land Trust. Gearing up to do work on the waccamaw river.

Kemp Burdette: Cape Fear River Watch working with the Titan issue and coal ash, trying to ensure that we clean up ash ponds. Working on CAFO and doing monitoring. Do a regular programs paddling, cleanup and fish restoration.

Hervey McIver: TNC working on the Onslow Bight Partnership. I work out of the Durham office. Land protection in the Onslow Bight near Rocky Point is great habitat for row. Also some prescribed burning throughout the area.

Debbie Crane: TNC

Sarah Babin: TNC

Kacy Cook: NC WRC. I am a land conservation biologist, I coordinate the green growth toolbox and work with local governments to develop land use solutions...always looking for more partners.

Ted Wilgis: NC Coastal Fed. Working with Stump Sound and Myrtle Grove protecting watershed especially with storm water management. Having a national estuaries day event. New Hanover county is working with school education around storm water program. Building what they learn from other partner orgs.

Chip Colliers: NC Division of Marine Fisheries we deal with fish and any fires that come along with that. Right now dealing with the federal listing of sturgeon no harvest of red snapper which will be open for two weeks to do a stock assessment. We are working with fishers, working to create oyster reefs in Stump Sound.

Phil Prete: City of Wilmington. Working with Coastal Fed on watershed restoration on Hewletts and Bradley creeks over two years. We are taking it to City Council for approval this week. A new focus is retrofitting in areas where there's never been any storm water devices installed.

Tom Hancock and Suzanne Dorsey: Bald Head Island Conservancy. We have completed our new facility and are looking for partnerships with regional agencies to bring people in to use our new education and research building. It is perfect for staff retreats and environmental education excursions or trips.

Thank Debbie Crane and Kemp for putting together a press release today. It was on WECT this am. Press release after the meeting.

Take action on Airlie Foundation gardens and discuss motion to approve: by Dan Ryan. The MOU renews itself unless there are issues. Phil explains the process. Unanimous approval.

Committee reports.

Outreach and education: We have developed a Cape Fear Arch sticker. This could be a source of income for the group. If you can sell them and raise some funds please see Tom Charles. Specifically we would like to raise funds for banners and educational materials.

Executive committee: Executive committee is looking for new blood. Committee members serve for two years. At end of year Phil Prete and Christine Ellis will be stepping off. Please let one of the committee members know if you have interest in serving. It's not a huge commitment but we do try to meet in-between meetings and

have the responsibility of planning meetings. Another thing we talked about the committee structure. Outreach and education committee is getting things done. The conservation committee has completed their charge what's next? Infrastructure committee is it necessary? Any thoughts?

With outreach and education committee got a new charge trying to brand Arch and make sister that we all keep in touch. Conservation planning committee might have a new focus on successes Dan and Sarah have been doing some of this work. They make sure everybody is aware of opportunities to leverage partnerships. Partnerships are crucial to our survival. What tools do we need to facilitate these. Just keeping the Arch together and meeting is a primary goal. How do we make the Arch relevant and cohesive.

November meeting in Bladen lakes area. November 27 put it on your calendar.

Tracey Scrabal suggested Bald Head for a meeting next year.

What about economic development? Scott Pullman mentioned that in the conservation plan we have sub regions and explain what's important and include economic discussion. Scott Ogden suggests his purpose as filling in the gaps for other economic development commissions; we don't take stands on issue because then your perceived as anti growth. We've tried to have discussions about river front development.

Phil - New Hanover, Pender, Brunswick and other partners received a 1.13 million HUD sustainable communities grant. We do have need for linkage to other partners. Looking for stakeholders to serve on technical advisory committees. Not just a focus Environmental sustainability but also economic sustainability.

Why don't we have a meeting at UNCW. Roger Shew, UNCW: We have established a sustainability committee it is more inward looking to achieve goals set by the university system to have a reduction in energy usage...we've accomplished lots of these goals so now we are looking at corridors along the river. We want to include you in the internships. Will work with Suzanne to pursue this.

Focus on the priority areas

We need to be careful not to be too Wilmington focused and include down to South Carolina. Finding the economic drivers in those areas too. If we go to an area it's an opportunity to bring in potential partners and economic drivers.

Potential locations for Meetings:

- Bald head island
- Bladen lakes
- UNCW.

PRESENTATIONS:

Chip Collier: Compares the population of fisheries to stocks in the market. We want to keep fish populations sustainable. In the cape fear we are looking at Shad, striped bass, and sturgeon.

Anadromous fishes tend to be overfished in the Cape Fear except striped bass. Shad especially is overfished ever since 1900. In 1904 gear restrictions were put in place because of wasted of fish. In 1946 the city of Wilmington restricted selling striped bass in the city. In 1984 stringent restrictions were put in place and since then the striped bass recovered everywhere except the Cape Fear River. In 1991 NC put a harvest moratorium on sturgeon. In 1994 we started getting good landings program and thus have a good record of what's going on. There is no current stock assessment on Cape Fear River stocks. We feel they are not doing well.

American shad has more data. The population is semiparous in the cape fear river. that means they spawn only once. The population seemed to have a peak in 2003 then a drop in that population. Since shad roe is desirable there is more pressure on the female population

We have very little information on the Atlantic surgeon. Listed as endangered by the NMFS. This is being challenged. Maximum age is 60 years old. Population seems to be tuned into temperature there may be a spring and fall spawning. This fits with research data. We want to protect both these runs.

Current research: Tagging goals for American shad, Atlantic sturgeon, shortnose sturgeon and striped bass: track fish migration, determine the percentage passing over Dam or through lock #1. We want to figure out if they are using the fish pass or the lock chamber. They use both conventional tags that depend on fishers reporting and now acoustic telemetry. The signal is continuous and unique to the fish. Receivers are located in the river and are listening all the time. These are cost prohibitive. Receivers are located from Bald Head up to the NE Cape Fear and a couple in the Black River. TNC provided funding for tags for shad, as did Cape Fear River Watch for Stripers and the NMFS for the Sturgeon.

Results: 54 Atlantic Sturgeon were tagged in the Cape Fear River. Fish from the Delaware and from the Connecticut River have been detected in the Cape Fear River. Only 2 shortnosed sturgeon have been tagged in the Brunswick River. One of these fish relocated in Georgia the other individual is located around the Sutton Power Plant. American Shad and Striped Bass have 20 tagged each. We have found a lemon shark that was observed from Florida and 2 Sand Tiger Sharks from Maine and Delaware.

Location in the river: 97% were found in the upper Cape Fear River. Atlantic Sturgeon are spread out with the majority in the NE Cape Fear River with 24 and 17 in Brunswick River and Upper Cape Fear. Shortnosed Sturgeon (2) are predominately in the upper

cape fear river. Striped bass are mostly found in the upper cape fear (52%) with the rest in the NE Cape Fear river (30%).

We have had them use the rock arch ramp. 1 Stripper went through. 80% of American shad went through lock#1. Most use the lock chamber, only three used the rock arch. The current flow seemed to divert the fish to the lock chamber.

Atlantic sturgeon: only 1 made a spawning migration up to lock and dam #1 - it didn't go past it.

A series of maps that show migration patterns of all the migrating fish.

- American Shad

<http://www.animaps.com/pb/1298006/3432/shadedit>

- Striped Bass

<http://www.animaps.com/pb/1295006/8339/bassedit>

- Sturgeon

http://www.animaps.com/pb/1100002/7096/Adult_Atlantic_Sturgeon

http://www.animaps.com/pb/1076040/784/Atlantic_Sturgeon

PRESENTATION 2:

Kemp Burdette: Cape Fear River Watch:

Overview for people who are not familiar with what's going on:

Anadromous fish in the Cape Fear have been reduced and sturgeon are endangered. The Three dams on the Cape Fear are the main reason for this decline.

Why not just take the dams out? This is unlikely because Wilmington and Brunswick County get their drinking water behind lock and dam number 1. Taking the dam out could limit the water supply for Wilmington. The same is true for Fayetteville at lock and dam #2. The next best thing is the rock arch rapids that allow fish to swim over the dam. Locking the fish through the lock chambers works but not really well. Fish ladders won't work as well for Sturgeon so they weren't an option in the Cape Fear.

Economic benefits of the healthy ecosystem.

A rock arch system is a ramp of boulders that goes up over the dam. These fill a scour hole and then a series of arches are built. Flow is controlled to the middle because the depth is maximized there. These look like terraces or steps that proceed up river made from large and small boulders. The rock arch systems are 85% complete. There is a hope that it's possible that sturgeon could spawn on the rock system itself.

Education:

StriperFest: Banquet, VIP Cruise, fish forum family educational activities. The tournament during stripier fest is when the tagging is conducted.

LakeFest:

Community Presentations:

1st Saturday Seminars:

Environmental Art: working with the Cameron art museum. A great way to start a conversation.

ARCH could work with artist to get the word out about the partnership.

Advocacy:

2009 the Cape Fear River Watch encouraged the Corps to use some recovery funding to start the Rock Arch construction. It was added to the second release of funds.

The Cape Fear River Watch was strongly in support of listing sturgeon.

On the Game fish Bill the CFRW made sure it was supported to help striped bass

Action:

Tagging of stripers

Water Quality study with Larry Cahoon.

Future Habitat Restoration.

Kemp giving Melanie Harris' talk:

Migratory Fish Working Group

Cape fear is the largest river basin in the state. The lock and dam work is an opportunity to make significant improvements for migratory fish and protect from future threats.

Focus is: Shad, Herring Alewife, Sturgeon American eel.

Mission: Restore robust productive and self-sustaining stocks of migratory fish in the Cape Fear River.

Website www.habitat.noaa.gov/protection/capefear..

The plan provides long term habitat based solutions to challenges for migratory fishes. includes a socioeconomic analysis.

Goal: 1. Restore access to historic migratory fish habitat. Goal 2: Improve habitat conditions for migratory fish; Goal 3: Identify Socioeconomic benefits of migratory fishery restoration.

Alignment with the Arch: Shared interest in goals; Common interest in six arch conservation plan priority areas; also have several common partners. The priority issues also are shared.

Discussion about how the ARCH can shift the focus that might benefit what this program might do. With the Conservation planning committee we recognized that we have traditionally focused on the terrestrial issues. We realize with the development of

this plan that we really haven't had the aquatic focus in our planning arena. How can we partner with this partnership?

There is an overlap between these partnerships. Once the goals and objectives have been identified then the next step is to identify who is the lead for each of them. So is it time to have a joint meeting to identify these leaders. Identifying leaders is part of the CFRMFWG goal--many are agencies or like Christine Ellis who is being tapped to work with soil and water conservation. It's been set up with short term mid and long term approach for reaching these strategies.

We had hoped that Melanie would be able to rope in some new partners. The answer is yes, we should try to have a group meeting. They have been trying to have a meeting to include stakeholders. Part of the problem is the number of participants from DC. They are looking for somebody to take over the plan locally. It is also worth noting that its a pilot project for NOAA and they are looking at this to step up a model that they can export elsewhere. The watershed goes far beyond the Cape Fear Arch limitations so I don't think this group can be the lead.

Did NOAA discuss a plan to transition the leadership with or without funding? NOAA was fairly coy about that. They don't want to be the primary funder on it. They are looking for potential funding sources. With the Cape Fear Harbor deepening project continuing could some funding come from mitigation? The original deepening project was permitted back with the original project so the rock arch project already mitigates that. There is another portion of the project that could provide available funds.

Dan Ryan suggested that the partnership includes many of the same groups but different people within those organization. There's definitely potential to bridge some gaps. We really need to put an aquatic focus in the plan. Could the Conservation Committee use the CFRMGWG plan and incorporate their goals into our Conservation Plan.

Melanie provide her thoughts about how the ARCH could work in the context of CFRMGWG – see her presentation and the draft plan on the Arch web page.

The River Friendly Farmer Program is gong to be resurrected and the Brunswick County Soil and Water Conservation program is hoping to recognize somebody in the Waccamaw river next month with that program.

One other comment: As part of CHPP a strategic habitat area is a GIS exercise that includes modeling where groupings of important habitats are and then identifying advisory committees can be identified. This includes rare species of aquatic species. That all gets plugged into the model to focus conservation efforts and restoration efforts.

ARCH partners can also use the actions into the goals of your individual organization.

A way we are helping implement the plans: WRC is working with communities and triad regional council to put in stream buffers. A few local governments recognized this and some go above and beyond the rules.

Lunch Break and Tour of the #1 lock and dam and rock arch rapids hosted by the Corps.

Please mark your calendars for the next quarterly meeting – November 27, 2012.

